

AMENDMENT TO THE CLAIMS

1. (Currently Amended) A computer readable storage medium having instructions that, when implemented on a computer cause the computer to process information, comprising:

a VoiceXML module executing a form interpretation algorithm, the VoiceXML module including instructions executed by a processor of the computer in a defined order based on an execution algorithm to cause causing the computer to establish an interactive dialog with a user to complete the form, wherein the VoiceXML module declares a first field and a second field and the instructions process dialog events associated with at least one of recognition, prompting, and messaging events, wherein the form interpretation algorithm is initialized in response to instantiation of the form and the instructions of the VoiceXML module are executed in the defined order for processing prompting events in the dialog;

a SALT module having speech application language tags embedded within the VoiceXML module, the SALT module including at least one object having a temporal trigger for initializing an operation associated with the instructions of the VoiceXML module during the interaction, wherein the operation initialized by the SALT module comprises at least one, but not all, of recognition, prompting, and messaging events, wherein the temporal trigger of the SALT module initializes a speech recognition event having a plurality of associated grammars, the speech recognition event obtaining to obtain a recognition result from the user having a plurality of portions, wherein the speech recognition result event initialized by the SALT module associates a first portion of the recognition result with a first grammar of the plurality of grammars to complete completing the first field declared by the VoiceXML module and associates a second portion of the recognition result with a second grammar of the plurality of grammars to complete completing the second field declared by the VoiceXML module; and

wherein the execution algorithm of the VoiceXML module automatically invokes the temporal trigger of the SALT module for initializing the speech recognition event

when the at least one object is encountered and automatically advances to a subsequent instruction in the defined order after completion of the speech recognition event.

2-5. (Cancelled)

6. (Previously Presented) The computer readable medium of claim 1 wherein the temporal trigger initializes a dual-tone multi-frequency (DTMF) recognition event.

7. (Original) The computer readable medium of claim 1 wherein the temporal trigger initializes a messaging event.

8. (Currently Amended) The computer readable medium of claim 1 wherein the VoiceXML module declares a first field and a second field and wherein the SALT module initializes a recognition event to obtain speech input from a user and fills the first field with a first portion of the speech input and fills the second field with a second portion of the speech input.

9. (Original) The computer readable medium of claim 8 wherein a first grammar is associated with the first field and a second grammar is associated with the second field.

10. (Cancelled)

11. (Currently Amended) The computer readable medium of claim 1 wherein the VoiceXML module declares a first field and a second field and wherein the SALT module initializes a recognition event to obtain an utterance having speech and DTMF input from a user and associates the speech input with the first field and the DTMF input with the second field.

12. (Currently Amended) The computer readable medium of claim 1 wherein the VoiceXML module declares a field and wherein the SALT module initializes a recognition event to obtain obtaining a recognition result from the user to fill the field and executes a prompt to render the field to the user.

13. (Previously Presented) The computer readable medium of claim 1 wherein the SALT module executes a messaging event to connect to a remote application.

14. (Previously Presented) The computer readable medium of claim 13 wherein the SALT module receives the result based on the messaging event and renders the result to a user.

15. (Cancelled)

16. (Original) The computer readable medium of claim 1 wherein the trigger is one of an indication of error, exception, recognition and no recognition.

17. (Original) The computer readable medium of claim 1 wherein the trigger is completion of a playback instruction.

18. (Original) The computer readable medium of claim 1 wherein the trigger is receipt of a message.

19. (Currently Amended) A computer readable storage medium having a markup page executable by a computer, that, when implemented, causes the computer to process information, comprising:

a VoiceXML module having VoiceXML executable instructions that are executed by a processor of the computer to establish an interactive dialog between the computer and a user, wherein the VoiceXML module declares a first VoiceXML field and a second VoiceXML field and instantiates a form interpretation algorithm for filling the first and second VoiceXML fields, the form interpretation algorithm controlling prompting events in a dialog flow with the user, the form interpretation algorithm looping through the VoiceXML executable instructions in a defined order until the first and second VoiceXML fields have been filled by the user;

a SALT module having speech application language tags to execute a speech recognition event associated with at least one prompting event controlled by the form interpretation algorithm instantiated by the VoiceXML module during the interaction, wherein the SALT module interrupts the form interpretation algorithm loop when a tag of the SALT module is encountered to initialize the speech recognition event, wherein the speech recognition event is initialized to obtain speech input from a user and fills the first VoiceXML field with a first portion of the speech input and fills the second VoiceXML field with a second portion of the speech input; and

wherein the form interpretation algorithm of the VoiceXML module automatically invokes an object of the SALT module for initializing the speech recognition event when the tag of the SALT module is encountered and automatically advances to a subsequent instruction in the defined order after completion of the speech recognition event.

20. (Previously Presented) The computer readable medium of claim 19, wherein the form interpretation algorithm continuously loops through the VoiceXML executable instructions until the first and second VoiceXML fields have been filled.

21. (Original) The computer readable medium of claim 19 wherein a first grammar is associated with the first VoiceXML field and a second grammar is associated with the second VoiceXML field.

22. (Currently Amended) The computer readable medium of claim 19 wherein the SALT module initializes a recognition event having a plurality of grammars to obtainobtaining a recognition result and associates the recognition result with at least one of the plurality of grammars.

23. (Currently Amended) The computer readable medium of claim 19 wherein the SALT module initializes a recognition event to obtainobtaining an utterance having speech and DTMF input from a user and associates the speech input with the first field and the DTMF input with the second field.

24. (Currently Amended) The computer readable medium of claim 19 wherein the VoiceXML module declares a field and wherein the SALT module initializes a recognition event to obtainobtaining a recognition result from the user to fill the field and executes a prompt in the markup page to renderrendering the field to the user.

25. (Original) The computer readable medium of claim 19 wherein the SALT module executes a messaging event to connect to a remote application.

26. (Original) The computer readable medium of claim 25 wherein the SALT module receives a result based on the messaging event and renders the result to a user.

27. (Currently Amended) A computer-implemented method for providing an interactive user interface comprising:

establishing, using a processor of the computer, a stepwise dialog embodied in a VoiceXML module for executing instructions in a defined order based on an execution algorithm associated with the VoiceXML module, the execution algorithm —to establish~~establis~~hing an interactive dialog with a user, the instructions including objects for processing events in the dialog associated with speech prompting and messaging to the user in the interactive dialog, wherein establishing the stepwise dialog declares a first field and a second field to be filled with portions of an input from the user;

providing a prompt to the user based on the execution algorithm using the VoiceXML module;

receiving a user input that is a response to the prompt, the user input including a first portion having speech input from the user and a second portion having a dual-tone multi-frequency (DTMF) input from the user; and

performing at least one object oriented operation embodied in a SALT module upon receiving the user input[[], []], wherein the at least one object oriented operation initializes a recognition event to associate~~associat~~e the speech portion of the user input with the first field and the DTMF portion of the user input with the second field.

28. (Original) The method of claim 27 wherein the object oriented operation is a speech recognition event.

29. (Original) The method of claim 27 wherein the object oriented operation is a DTMF recognition event.

30-32. (Cancelled)

33. (Previously Presented) The method of claim 27 wherein performing the operation further initiates a first grammar associated with the first field and a second field grammar associated with the second field.

34. (Currently Amended) The method of claim 27 wherein the operation initializes a recognition event having a plurality of grammars to obtain obtaining a recognition result and associates the recognition result with at least one of the plurality of grammars.

35. (Cancelled)

36. (Currently Amended) The method of claim 27 wherein establishing the stepwise dialog declares a field and wherein performing the object oriented operation includes initializing a recognition event obtaining to obtain a recognition result from a user to fill the field and execute a prompt to render the field to the user.

37. (Original) The method of claim 27 wherein the operation is a messaging event to connect to a remote application.

38. (Original) The method of claim 37 wherein the operation further receives a result based on the messaging event and renders the result to a user.